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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,489	12/14/2001	Hung-Lu Chang	3313-0444P-SP	9998

2292 7590 12/01/2005

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EXAMINER
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PSITOS, ARISTOTELIS M

ART UNIT	PAPER NUMBER
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2656

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/014,489

Applicant(s)

CHANG ET AL.

Examiner

Aristotelis M. Psitos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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**DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/2/05 has been entered.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1,3,7,8 and 9 are rejected under 35 U.S.C. 102(b) as anticipated by Hollmann et al

The following analysis is made:

Claim 1

Hollmann et al

A pick-up head, said-the pick-up head utilizing

see entire discussion wrt

electric reading / electric writing to access data

recording information onto a record

medium, col. 3 lines 25-26,

on a disk,

the disk being provided with a

ferroelectric material,

the pick-up head comprising:

a signal-writing unit,

base reference to Hollmann et al

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a voltage being provided by  
the signal-writing unit to write  
down the data on the disk;

col. 3 lines 25-26

a signal-processing unit,  
an electric signal read from a data-storing surface on the  
disk being processed by the signal-processing unit;  
and

see Hollmann et al reproducing

a pair of conductive wires extended from  
the signal-writing unit and the signal-  
processing unit, the ends of the pair of  
conductive wires being separated by a gap,  
the voltage applied by the signal-writing unit  
on the pair of conductive wires  
generating an electric field around  
the gap so as to polarize the data-storing  
surface on the disk to write the data,  
the ends of the pair of conductive wires being  
approached to the data-storing surface to induce  
polarization of the data-storing surface and  
the electric signals read from the disk being transmitted to  
the signal-processing unit.

see discussion with respect to  
element 17, and as further disclosed  
col. 4 lines 58 plus

In the above Hollmann et al analysis, the system disclosed therein provides for a source of  
information signals to be recorded onto a ferroelectric record medium by use of electrodes/wires – see  
the discussion at col. 1 line 15 to col. 2 line 36. A disc shape record is found at col. 3 lines 25-26.

Furthermore, Hollmann et al discusses the ability of reproducing the information so recorded.

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The examiner interprets a "gap" between the electrodes 17/27 as inherently present.

With respect to method claim 7 such occurs/is met when the above system operates.

With respect to claims 3 and 9, note that the electrodes 17 and 27 are displaced from each other and the examiner interprets such as meeting the pedestal limitation.

With respect to the limitations of claim 8, such is believed to be inherently present in the above system, i.e., a polarized state of the record represents a "1", and an unpolarized state represents a "zero". If such is not inherently present, such a signal representation is considered well known in this environment, and official notice is taken thereof.

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1,3,7 and 9 above, and further in view of Schaffert.

Although the above Hollmann et al system provides for both recording and reproducing, there is no clear depiction/mentioning of a switch and function thereof – i.e., to alternately couple the transducer element to the signal source or signal processing elements.

The ability of providing for a switch in this environment, so as to alternately permit recording and reproducing in this environment is well known as taught by the Schaffert system – see the discussion with respect to the switching capabilities so as to permit recording and reproducing as required.

It would have been obvious to modify the base system of Hollmann et al with the above switching capability taught by Schaffert, motivation is to sequential operation of a recording/reproducer system.

3. Claims 4,6 and 10,11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hollmann et al further considered with Ishii et al and Schaffert.

Claim 4 parallels claim 1 as analyzed above with the additional limitations:  
a laser diode for emitting a laser beam  
to read the data written by the pair of  
conductive wires;

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an object lens for focusing the  
laser beam on the data-storing surface on the disk  
to turn into a reading optical point; and

a photodetector for translating a reflective  
beam from the reading optical point  
into a electric signal.

Hollmann et al does not provide for the light/laser ability for the read out process. Ishii et al discussed/discloses in this environment the ability of recording with one type of process/method and reproducing with another – light – an optical head. The optical head has the laser source and the appropriate lens for focusing thereon. There is no clear depiction of a photodetector to convert the optical to electrical signals.

Schaffert teach in this environment, the ability of using an optical read out of a ferroelectric record medium and using a photocell/ i.e., a photodetector – see the discussion with respect to figure 8.

It would have been obvious to modify the base system of Hollmann et al with the above teachings from Ishii et al and Schaffert, motivation is to increase the reliability of the system by having one set of signal transducing elements and another for reproducing with the desired method. Such hybrid systems are well known in the arts.

The method limitation of claim 10 is met when the above systems operate.

With respect to claims 6 and 12, such are met in the above discussion in paragraph 1 with respect to the pedestal limitation.

With respect to claim 11, such is believed to be inherently present in the above system, i.e., a polarized stated of the record represents a “1”, and an unpolarized state represents a “zero”. If such is not inherently present, such a signal representation is considered well known in this environment, and official notice is taken thereof.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 4 above, and further in view of Watanabe.

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With respect to the limitations of claim 5, such elements are known in this environment for their inherent use – such is taught by the Watanabe et al system.

It would have been obvious to modify the references as relied upon in paragraph 3 above with the additional teachings from Watanabe et al, motivation is to provide for a more defined optical signal for the reproduced output.

***Response to Arguments***

5. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fatuzzo et al and Land et al discuss the b/h(e) fields and their effects upon polarization of ferroelectric materials in electro-optic systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-Thursday 8 - 3.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aristotelis M Psitos  
Primary Examiner  
Art Unit 2656

